

On page 47, line 2, delete "Figure 8" and substitute
--Figure 8a--.

On page 47, line 5, delete "from left to right" and substitute --
from right to left--.

On page 47, line 8, delete "right" and substitute --left--.

On page 47, line 9, delete the first "left" and substitute
--right--.

On page 49, line 22, delete "primay" and substitute
--primary--.

On page 54, line 13, delete "70" and substitute --69--.

On page 56, line 2, delete "Figure11" and substitute
--Figure 11--.

On page 60, line 10, after "147" insert --A, B--.

IN THE CLAIMS:

Kindly cancel claims 1-150, without prejudice.

1 151. A method of controlling a synchronous memory device, wherein
2 the memory device includes a plurality of memory cells, the method of
3 controlling the memory device comprises:

4 issuing a read request to the memory device, wherein in response
5 to the read request, the memory device outputs first and second
6 portions of data onto a bus;

7 sampling the first portion of data from the bus synchronously with
8 respect to a rising edge transition of an external clock signal; an

9 sampling the second portion of data from the bus synchronously
10 with respect to a falling edge transition of the external clock signal.

1 152. The method of claim 151 further including:
2 providing block size information to the memory device, wherein the
3 block size information defines an amount of data to be output by the
4 memory device onto a bus in response to the read request; wherein
5 a first portion of the amount of data is sampled from the
6 bus synchronously with respect to a rising edge transition of an
7 external clock signal; and
8 a second portion of the amount of data is sampled from the
9 bus synchronously with respect to a falling edge transition of the
10 external clock signal.

1 153. The method of claim 152 wherein, in response to the read
2 request, the first portion of the amount of data is output onto the bus
3 after a delay time transpires.

1 154. The method of claim 153 further including providing access
2 time information to the memory device.

1 155. The method of claim 154 wherein the access time information
2 is representative of a number of clock cycles of the external clock
3 signal to transpire before the first portion of the amount of data is
4 output onto the bus.

1 156. The method of claim 151 wherein both the rising and falling
2 edge transitions of the external clock signal include voltage swings of
3 less than one volt.

1 157. A controller device for controlling a synchronous memory
2 device, the controller device comprising:

3 output driver circuitry to output a read request to the memory
4 device, wherein in response to the read request, the memory device
5 outputs a first and second portion of data onto a bus; and

6 input receiver circuitry to sample the first portion of data from
7 the bus synchronously with respect to a rising edge transition of the
8 external clock signal and a second portion of data from the bus
9 synchronously with respect to a falling edge transition of the external
10 clock signal.

1 158. The controller device of claim 157 wherein the input receiver
2 circuitry includes first latch circuitry to latch the first portion of
3 data, and second latch circuitry to latch the second portion of dat-

1 159. The controller device of claim 157 further including a delay
2 lock loop circuit coupled to the external clock signal, the delay lock
3 loop circuit generating a first internal clock signal, wherein the
4 input receiver circuitry samples the first portion of data in response
5 to the first internal clock signal.

1 160. The controller device of claim 159 wherein the delay lock
2 loop circuit generates a second internal clock signal, wherein the

3 input receiver circuitry samples the second portion of data in response
4 to the second internal clock signal.

1 161. The controller device of claim 157 wherein both the rising
2 and falling edge transitions of the external clock signal include
3 voltage swings of less than one volt.

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1 162. The controller device of claim 157 wherein the input receiver
2 circuitry samples an amount of data during a plurality of clock cycles
3 of the external clock signal.

1 163. The controller device of claim 162 wherein the output driver
2 circuitry provides information representative of the amount of data to
3 output in response to a read request to the memory device.

1 164. The controller device of claim 163 wherein the read request
2 and the information representative of the amount of data to output are
3 included in a read request packet.

1 165. A method of operation of a memory controller device
2 comprising:

3 issuing a write request to a memory device synchronously with
4 respect to an external clock signal, wherein in response to the write
5 request, the memory device inputs first and second portions of data
6 outputting the first portion of data synchronously with respect
7 to a first edge transition of an external clock signal; and

8 outputting the second portion of data from the bus synchronously
9 with respect to a second edge transition of the external clock signal.

1 166. The method of claim 165 wherein the controller device outputs
2 the first portion of data after a delay time transpires.

1 167. The method of claim 165 further including providing access
2 time information to the memory device.

1 168. The method of claim 167 wherein the access time information
2 is representative of a number of clock cycles of the external clock
3 signal to transpire before the first portion of the amount of data is
4 available on a bus.

1 169. The method of claim 165 wherein the first and second edge
2 transitions of the external clock signal include voltage swings of less
3 than one volt.

1 170. The method of claim 165 wherein the first portion of data and
1 second portion of data include voltage swings of less than one volt

1 171. The method of claim 165 wherein the data is output during a
2 plurality of first and second edge transitions of the external clock
3 signal.

1 172. The method of claim 165 further including providing block
2 size information to the memory device, wherein the block size